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Artículos Científicos

Docencia y comprensión situacional. El caso de una facultad de educación en el sureste de México

Teaching and situational understanding. The case of a Faculty of Education in the southeast of Mexico

Ensino e compreensão situacional. O caso de uma faculdade de educação no sudeste do México

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Resumen

Este artículo presenta los resultados de un estudio realizado con motivo de la suspensión de labores docentes y académicas en una facultad de educación del sureste de México. Para ello, se parte de la idea de que los docentes cuya formación se basa en la pedagogía y en las ciencias de la educación conciben el fenómeno educativo de forma diferente y, en consecuencia, son capaces de anticipar, adecuar y tomar decisiones pertinentes que van más allá del traslado del aula presencial a la virtualidad con las respectivas herramientas tecnológicas; es decir, tienen no solo una consciencia de la situación, sino también una comprensión situacional que los conduce a la modificación de contenidos, de estrategias de enseñanza-aprendizaje y —de ser necesario— de criterios de evaluación, dado que la situación es extraordinaria y la enseñanza debe tomar en cuenta las posibilidades, pero también las restricciones que no pueden ser ignoradas. En ese sentido, en cuanto a la consciencia situacional, se encontró que todos los docentes lograron establecer satisfactoriamente la comunicación con sus estudiantes a través de diferentes

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vías y redes, tanto institucionales como personales. Asimismo, en términos de la comprensión situacional, el profesorado señaló cambios importantes a partir de los efectos de la pandemia en la vida estudiantil, familiar y personal del alumnado, y se mostró sensible a la situación al grado de confrontar ellos mismos su rol docente y hacer los cambios necesarios para adaptarse lo mejor posible a una situación por demás retadora en múltiples niveles.

Palabras clave: comprensión situacional, conciencia situacional, educación superior, emergencia sanitaria.

Abstract

This article presents the results of a study carried out on the occasion of the suspension of teaching and academic work in a Faculty of Education in the southeast of Mexico. It starts from the premises that teachers whose basic training is pedagogy and educational sciences, conceive the educational phenomenon in a different way and, consequently, are capable of anticipating, adapting and making relevant decisions that go beyond the transfer of the virtual classroom with the respective technological tools; In other words, it does imply an awareness of the situation, but beyond that, a situational understanding that leads to the modification of content, teaching and learning strategies and even - if necessary - evaluation criteria, since the situation is extraordinary and emergency remote teaching has many possibilities but also restrictions that cannot be ignored. In this sense, in terms of situational awareness, it was found that all teachers were able to satisfactorily establish communication with their students through different channels and networks, both institutional and personal; Likewise, in terms of situational understanding, the teaching staff pointed out important changes from the effects of the pandemic on the student, family and personal life of the students and was sensitive to the situation to the extent of confronting their teaching role themselves and making the changes needed to best adapt to an otherwise challenging situation on multiple levels.

Keywords: situational understanding, situational awareness, higher education, health emergency.

Resumo

Este artigo apresenta os resultados de um estudo realizado por ocasião da suspensão do trabalho docente e acadêmico em uma faculdade de educação do sudeste do México. Para isso, parte-se pensa que os professores cuja formação se baseou na pedagogia e nas ciências da educação concebem o fenômeno educacional de forma diferenciada e, conseqüentemente, são capazes de se antecipar, se adaptar e tomar decisões pertinentes que também irão transferir a sala de aula para a virtualidade com as respectivas ferramentas tecnológicas; ou seja, têm apenas uma consciência situacional, mas também uma compreensão situacional que o leva a modificar conteúdos, estratégias de ensino-aprendizagem e - se necessário - critérios de avaliação, uma vez que a situação extraordinária tem de ser realizada. , além de restrições que não podem ser ignoradas. Neste sentido, em termos de consciência situacional, confirmo que todos os professores poderão estabelecer o sucesso na comunicação com os seus alunos através de diferentes canais e redes, tanto institucionais como pessoais. Da mesma forma, em termos de compreensão situacional, ou ensino de mudanças importantes apontou corpo, dois efeitos da pandemia em uma pessoa, família e vida pessoal para dois alunos, e era sensível à situação antes de confrontar seu papel de professor e fazer ou movimentos necessários para cada criança. adapte-se a uma situação desafiadora em várias neves.

Palavras-chave: compreensão situacional, consciência situacional, ensino superior, emergência sanitária.

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Introduction

The pandemic caused by the Sars-Cov-2 virus (covid-19) has impacted the world in various ways. Despite the forecasts that the World Health Organization (WHO) made and the recommendations that were gradually hardening to move from voluntary to restrictive measures, no country in the world has been able to fully weigh the impact generated in the economic, social, political, educational and cultural.

In the case of Mexico - until the moment of writing this document - this has been one of the last countries to experience the implications of the pandemic, but in the face of the world scenario it was possible to anticipate with some strategies to flatten the contagion curve, although up to now there are only possible forecasts from the Sentinel epidemiological surveillance model, which estimates linear, but not exponential, infections. Given this, as almost everywhere in the world, the reduction of mobility, the

suspension of non-essential activities and the stoppage of school services became a reality. Particularly in the southeast of the country, with a week in advance of the national indications, it was decided to suspend all activity, first educational and social, and later non-essential economic.

Therefore, this work presents —35 days after the suspension of work— the teachers' vision of a bachelor's degree in education in relation to some of the challenges, facilities and perceptions of the adaptations they have had to make to their practice teacher, as well as the ways in which they consider that students have reacted to the current contingency situation. The central premise is that to the extent that teachers manage to demonstrate high capacities to adapt, make adjustments and be flexible to change, they can influence the training of future teachers, who need these references to face future work scenarios that possibly may differ from what was learned in university classrooms.

From novice teacher to expert: situational understanding and adaptation

There are different theories and proposals on how a professional in the area of pedagogy and education should be trained, as well as an intense discussion regarding the number of years, practices and experiences that lead a professional from novice or novice to expert. In general terms, we will rely on the theoretical proposal of Pérez (1996) and Elliot (1993), who place the level of expertise of teachers not necessarily with years of experience, but with the possibility of moving towards a situational understanding of their context to make the adaptations that work best to the new conditions.

However, this concept of situational understanding is generally taken as synonymous with situational awareness, when at best it should be the next step. Casanovas (2016) mentions about situational understanding that "sometimes this concept is confused with that of situational awareness (situation awareness), which is limited to shuffling physical elements of the environment to understand our relative situation and not be surprised by them" (para 10), that is, situational awareness refers to our ability to interpret the immediate physical context and make decisions based on it. When linked to the field of teaching, this term could be understood as the possibility of the teacher to analyze the distribution of the classroom, the number of students and their differentiation by sex and age, the schedule (morning, afternoon, evening, Saturday) of the subject, its type (compulsory, optional or free configuration), the semester in which it is located, its modality (face-to-face, virtual, mixed), among other elements that make up the physical

space (understood in the broadest sense of the word) that allow you to make decisions based on those circumstances.

Valencia (2016) points out that the concept of situational awareness was used for the first time in the military field, particularly with war pilots; However, the evolution of the term from cognitive psychology gave rise to "a whole methodological scaffolding that allows individuals to correctly carry out their activities in diverse environments in order to avoid any type of loss" (para. 5). Therefore, the concept has had applications from business security, the field of criminology and, for the purposes of this article, education.

According to Cordón, Olivier, García and Walliser (2014), situational awareness (SA) is defined as follows:

> It is the process of creating and understanding a map or mental representation of the subject's environment, especially in complex systems and with stimulating overload, through the selection of the information received, its subsequent elaboration and, finally, the making of pertinent decisions (p. 83).

As an example of the above, we will refer to the current topic: a pandemic. It is possible to create a map in relation to the knowledge regarding the health contingency and its implications for the family, the school and the health system; consequently, provide guidance on which places to avoid, as well as what measures are pertinent so as not to aggravate the conditions, which would imply reasoned decision-making in this regard. However, empirical evidence in countries such as Mexico, Italy, Spain, among others, shows that it was not enough to prevent the population from complying with certain voluntary restrictions (in principle) until it was too late, that is, situational understanding failed. of what the epidemic could represent.

According to Endsley (1996, cited by Cordón et al., 2014), SA develops at three levels. The first is the perception of the elements of the environment, directly linked to the physical possibility of perception and the "raw" storage of raw figures, although some data can later be recovered to confirm a variable present, but not yet integrated into a panorama. broader of the situation. It is at the second level where - although there is not yet necessarily a relevant understanding for the development of a task - there is an integration of the collected data, as pieces of information that will allow determining their relevance according to the individual purposes that each subject has. . Finally, the third stage or level is the prediction of the future, a status in which future scenarios of the environment are projected, of course, based on the information collected and integrated in levels 1 and 2.

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Now, Endsley (2015) also points out that these stages are presented in the SA, not in a linear way, but in an ascending way. A person who understands a situation has better situational awareness than one who can read data on a screen, but does not understand what it means. Similarly, a person who can project a plausible future and the states of the system and the environment has better SA than one who cannot.

For example, in a classroom situation, during a teacher explanation, observing two students raise their hands would imply level 1, that is, the awareness that a gesture has been presented by two members of the group; At level 2, this gesture - and other elements such as requesting the floor from one of them along with other verbal and non-verbal signals - would lead to the floor to one of them (or to both, as the case may be); and at a third level, predicting that the participation of said students may be constant during the development of this and the other class sessions. Now, even with the possibilities of prediction, in the field of teaching, being able to predict whether there will be more participations does not imply judging the quality, intentionality, or emotional charge, or what it could possibly represent for the participant or for the student. rest of the group. All this would be at the level of situational understanding (SC).

Situational understanding "involves discriminating and synthesizing the significant elements of the practice of any situation in a coherent and unified drawing of the concrete situation (...), conditioned by practical interests in the realization of professional values within a situation" (Elliot, 1993, cited by Pérez, 1996, p. 347). That is, there is not only decision-making, but also value judgments detached from the situation and the previous meanings valued in the decisions made.

In this regard, Pérez (1996) explains that an expert teacher is one who relies on the analysis of the specific situation, but even more so on the results that are generated from the interaction between understanding and their professional performance, elements that complement each other. and empower. In this sense, and under a hermeneutical scheme of the construction of the meanings of teaching, teachers must be autonomous in their decision-making because that will lead them to generate their own conclusions regarding what it means for him or her to be a teacher and best practices derived from this understanding. If we were to stay solely at the SA level, then it would be enough to prescribe a course program with its respective session plans and ask the teaching staff to follow it to the letter, starting from the premises that both the course program and the course plan These sessions are prepared based on the fundamental principles of pedagogy and didactics, so the teacher will be considered an expert to the extent that he analyzes and predicts how to successfully implement these contents in the time allocated for it.

So, should the teaching staff make adjustments or not? The answer - at the situational understanding level - is yes, but under the understanding that these adaptations will always be relative and must address other social, material and economic conditions that transcend the fact of not attending school due to a pandemic; In other words, the health emergency and the stoppage of academic work are additional variables that must be considered to undertake or not to undertake certain changes. It is not changing the course because there is a pandemic, but rather asking what implications the pandemic has in society, in school, in the lives of students, in teaching practice and, ultimately, in the current scope and limitations of the students. courses that each teacher teaches.

Study context

The faculty in question is the most recently created in the university. The latter is 95 years old and has gradually positioned itself as one of the top five in the southeast of the country. For its part, the Faculty of Education was founded 36 years ago and had the peculiarity that, unlike other departments of the same university, it began first with its postgraduate offer rather than a bachelor's degree.

Currently, it offers three postgraduate programs (specialization in Teaching and two master's degrees in Educational Research and Educational Innovation) and two bachelor's programs (in Education and in English Language Teaching); The offer of the Bachelor of Education is carried out on two campuses; Mérida (capital of the state of Yucatán) and the Tizimín Multidisciplinary Unit, in the east of the region (Faculty of Education of the Autonomous University of Yucatán [FEUADY], 2020).

In its origins, the aforementioned faculty recruited personnel from other schools and faculties that gave a very particular meaning to their graduation profiles, mainly because they did not belong to the area of pedagogy or educational sciences, that is, practically all the founding personnel were engineers. , psychologists, architects, chemists, etc., with a specialty in teaching, but no pedagogue or graduate of the teaching profession. It is from the graduation of the first generation that the first graduates in Education gradually begin to join the teaching staff. Currently, it is possible to identify, tacitly, three large groups of teachers: the founders (from different backgrounds, with more than 25 years of work and some close to retirement); consolidated professors (the majority of graduates in Education, with 15 to 25 years working in DES) and new generation teachers (all graduates of the degree, with experience between 5 and 15 years in their respective areas).

The graduation profile of the undergraduate degree has undergone different modifications since 1984, the year in which the University Council of the IES approved the first study plan, although it basically preserves the essence of supporting training in four areas or fields: educational administration, curriculum , teaching and educational orientation. However, to this day there is still a struggle with the idea that a graduate of the career is only qualified for teaching, when the profile is much broader. Possibly, this has also made teachers assume the need to develop diverse competencies in students that allow them to expand their work and academic options, in the face of a society that - even with 30 generations graduated - still does not really know the possibilities of a degree in Education.

In this sense, there is a situational awareness from which meanings also emerge from the interpretations made of the context; According to Albercht (2007), "human beings fill spaces with meanings, and these meanings influence their interactions" (para. 7), that is, it is bidirectional. Now, precisely in this article, the interest lies in knowing how much these interactions - which already have a symbolic charge in the face-to-face space - can be adapted to the new conditions that the pandemic brought with it.

These new conditions caught teachers by surprise due to advanced governmental decisions, despite the fact that the panorama in other parts of the world had already evidenced the type of restrictions that the respective governments had implemented as part of learning about social behavior around the disease.

The government of the state where the university is located decreed a week in advance of the federal government the start of the non-essential work stoppage, which also coincided with an official non-working holiday, so work was suspended from March 17 academic (Autonomous University of Yucatán [UADY], May 15, 2020).

For this reason, on April 1, 2020, the school administration asked teachers to gradually advance the contents of their subjects, anticipating - for that date - that the health situation would allow a return in the first week of May. The indication was to use strategies that favor the successful development of the contents and their effective learning. To make this request, for its part, the administration of the agency carried out a survey of the technological and connection conditions of the students of the two undergraduate programs it offers (English Language Teaching and Education; the latter in two campuses: Mérida and Tizimín). The response obtained indicated that the percentage of students who have the conditions to comply with progress in the subjects was just over 75% on average, with particular differences between academic units. For this reason, the times, forms and strategies to move forward were left to the consideration

of the teachers with a view to returning to the classrooms towards the end of April or beginning of May. However, on April 16 the national authority and, later, the state authority announced the extension of the day called Sana Distancia, which is why the stoppage of non-essential activities and some essential activities was extended. Then, the return to classes was estimated at that time towards the beginning of June, although the possibility of returning to the educational presence was later ruled out.

Objective

Describe the adjustments that teachers in the area of pedagogy and education have made in their proposals and didactic interactions from the crisis generated by covid-19 in a unit belonging to a university in southeastern Mexico.

Methodology and participants

This study was exploratory, with a mixed approach, as it was based on collecting data from a survey-type design and conducting a content analysis of open responses. The importance of using a mixed approach is found in that it allows ensuring the understanding of a given phenomenon from different angles, a practice that has become common in fields of various disciplines such as the health sciences (nursing), as well as in the social sciences. , humanities (or behavioral sciences) and economic-administrative (Tashakkori and Teddlie, 2003). Likewise, it is classified as cross-sectional because, according to Hernández, Fernández and Baptista (1991), "transectional or cross-sectional research designs collect data at a single moment, in a single time. Its purpose is to describe variables, and analyze their incidence and interrelation at a given moment "(p. 247).

The data collection was carried out precisely in the middle of the health crisis, from an online instrument. The population was made up of the faculty of said faculty who taught classes in the Bachelor of Education (Mérida Unit) in the spring semester, January-May.

With these criteria, on April 17, teachers were sent a survey consisting of 19 questions distributed as follows: identification data (items 1 to 7) with questions such as the name of their course, the number of students, the modality (regular or accompaniment), among others. From items 8 to 12, Likert scale questions were used to find out if they had implemented any type of strategy due to the health emergency situation; Finally, from item 13 (except 15) to 19, open questions were used related to more specific details about the adaptations, challenges and suggestions that the teaching staff could make regarding the eventuality. The main results are presented below.

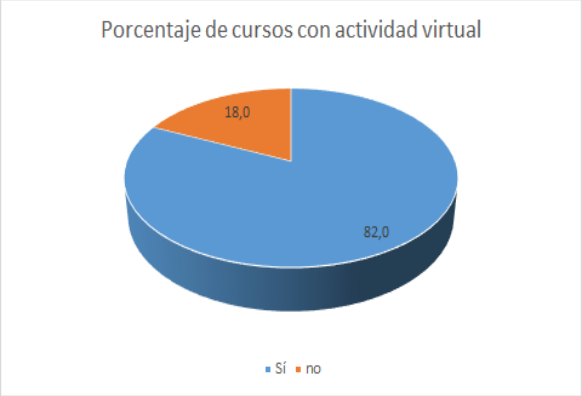
Results

Currently, 61 courses are taught in the educational program (Mérida Unit), including compulsory, elective or free-choice subjects. It should be noted that given the flexibility characteristics of the study plan, in the case of compulsory subjects, these are taught by two teachers, each at different times, so that students can select the teacher-schedule that best suits to the needs of your training journey.

In this sense, of the 61 courses in total, there was a participation of 93.84% of the teaching staff, that is, there was an excellent response from the teachers. Now, the courses can be on a regular basis (the first time the student enrolls in the subject) or by accompaniment (UADY, 2012). Both modalities come up because of the percentage of responses, 9.8% were courses by accompaniment and 90.2% were on a regular basis.

After the items related to demographic data, in item 8 the teachers were asked about progress in their courses; the results are shown in figure 1.

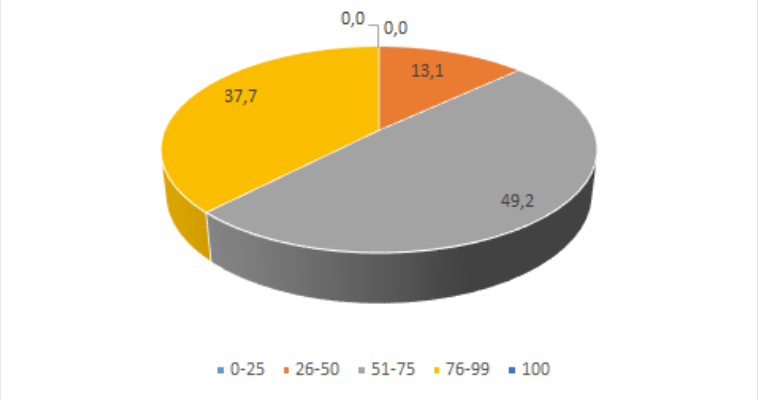
Figura 1. Porcentaje de cursos con actividad virtual (LE Mérida)



Fuente: Elaboración propia

As can be seen in the previous figure, the proportion of teachers who, at the time of the survey, had not had some type of contact or approach through the technological means available to them is minimal. Subsequently, in another of the questions, it was inquired about how much they considered that they had made progress during this period to cover the contents and develop the expected competencies of the course.

Figura 2. Porcentaje de avance de cursos (LE Mérida)

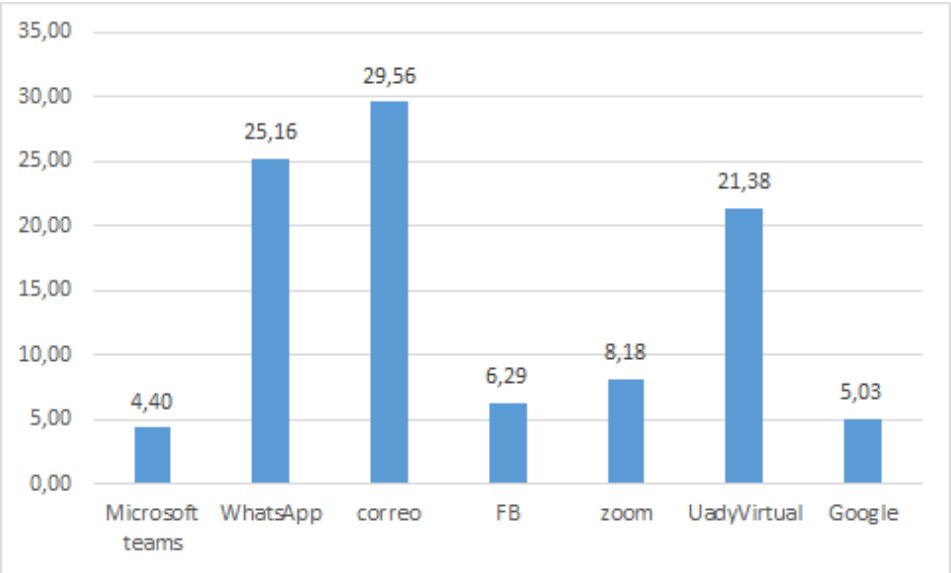


Fuente: Elaboración propia

Basically, half of the courses presented an advance between 51% and 75%, followed by a substantial advance of at least 76% thereafter, and although none claimed to have completed their course, neither did the evidence collected indicate minimal degrees of advancement (between 0% and 25%). This echoes with the previous figure, in terms that the teaching staff had continued - within their possibilities - to advance with their courses, trying to respect the variety and demands of each subject.

Subsequently, they were questioned about the most used technological tool to maintain the bond with the students; The results are presented below:

Figura 3. Plataformas o medios virtuales empleados



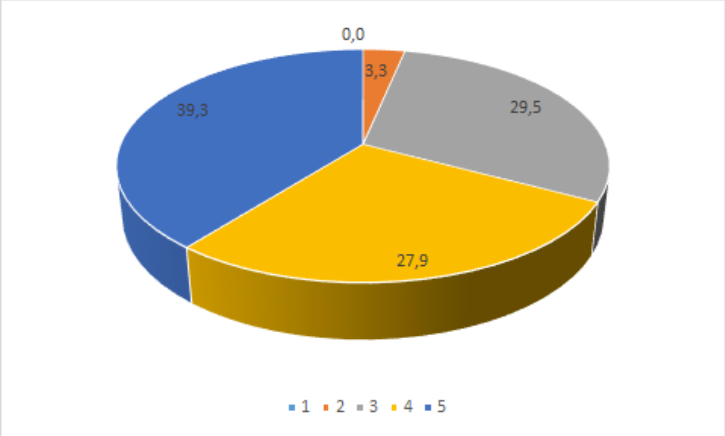
Fuente: elaboración propia

As can be seen, they were given the opportunity to select more than one medium or platform and were allowed to suggest one that was not in the list of options. From this figure it stands out that the main medium used is email, which could be considered the most traditional option in the range of current technological options. The second place

was occupied by instant messaging (WhatsApp) and in a third place the institutional learning management system, called UADY Virtual, which should top the list since since the implementation of the Educational Model for Comprehensive Training (MEFI) in 2012 each unit has offered a series of trainings for teachers, ranging from planning courses in non-conventional environments to the use of specific tools to configure the platform.

Another question posed had to do with how favorable the student's response to working in unconventional environments was considered.

Figura 4. Respuesta del estudiantado



Fuente: Elaboración propia

On a Likert scale (1 being the null response and 5 being excellent), the average considered by the teachers was x = 4.01 and the median was 4, so there is consensus in the data, that is, a response is perceived very good from the students. Until this descriptive section, we could only infer that teachers have a situational awareness of what is happening, which makes it possible to map the phenomenon that is being experienced and make decisions based on it, such as continuing the implementation of their courses through the media. unconventional and personal (such as mobile number and use of WhatsApp). At this point, no significant differences were found in these strategies in relation to variables such as sex, seniority or type of course.

Now, since a situational awareness is perceived, the following question arises: is it possible for teachers to make substantive changes to close their courses? To do this, a qualitative analysis of the open responses was carried out using the pencil and paper technique. In this way, the teachers' responses were categorized in questions 13, 14, 16, 17, 18 and 19. In the case of question 15, it was not taken into account for the qualitative analysis because it referred to the perception of the teachers about the student's response. For the purposes of the above, the teachers were asked what difficulties they had faced in

implementing distance classes. In advance, these had been divided into two categories: 1) those of a technical nature, such as equipment, connectivity and the type or nature of the course, and 2) those related to the human, such as personal characteristics, values, etc. According to the information obtained, the technical difficulties were the following:

- Low quality of internet service hired by both teachers and students.
- The efficiency of the energy service.
- Not having access to internet services (students and teachers).
- Lack of equipment (students and teachers).
- Lack of teacher training to teach classes in virtual mode.
- Lack of knowledge of the use of applications to take distance classes or not having the necessary programs for the classes.
- Lack of support from technology expert staff.
- The time spent planning remote work.
- Nature of the course (predominantly theoretical or predominantly practical).

Here are some of the comments that illustrate the above reasons:

- *Internet speed, lack of equipment to record videos.*
- *I have noticed that there are students who do not have the necessary technological tools to continue with all activities from home, it is a concern that their progress and chances of success may be affected.*
- *My biggest difficulties are techniques that I overcome from reading and reviewing video tutorials to program different activities, such as programming videoconferences, prerecorded classes or making videos, as well as Moodle issues, which [sic] although I took the course that gave us the ... I had to brush up with tutorials. I am concerned that everyone is and has the same conditions to finish the course, I mean the internet, the use of technological tools and the use of the platform.*

In the same vein, the human-type difficulties encountered are listed below:

- The responsibility of the student body by not looking for a way to get in touch with the teachers or with the team members.
- The responsibility of the teaching staff to follow up on the students who were developing theses.
- Resilience or its lack for the student body to face the pandemic.
- Lack of motivation of the student for distance work.

The following comments are an example of the above:

- *Difficulty in contacting all students and their participation in group and individual activities.*
- *None, just the slowness of the students' responses, but it is obvious, they are busy with matters of family relevance, as they have mentioned to me when they manage to communicate, but they are going well.*
- *The thesis work advisors have also not attended to the students in reviewing their progress.*

On the other hand, the socioeconomic family conditions of the students stand out, which made it difficult to pay for the internet; in fact, in some cases such service was not available because there was no technological infrastructure in the place of residence. This was an emerging category that was not included in the previous ones.

Finally, several teachers commented that they had not encountered any difficulties of any kind at the time of the survey.

Regarding the way in which the teachers had overcome the previous difficulties, the responses were categorized into 1) curricular adaptations, 2) learning, 3) investment of personal, time, material and financial resources, and 4) communication channels.

Regarding the curricular adaptations of teachers to overcome difficulties, the following was found:

- Extend delivery times.
- Modify learning activities.
- Restructure the process and product evaluation.
- Offer alternatives to make up for the lack of practice in real scenarios.
- Prepare materials to download offline.

The following comment shows the type of curricular adaptation carried out:

- *The difficulties that have arisen have been addressed trying to be more flexible in terms of the delivery time of some learning activities. Online sessions have been tracked via Facebook, in order to keep students who have encountered difficulties during online sessions informed or to connect to them.*

Regarding learning, the answers show that it could be of two types: autonomous and through third parties:

Autonomous

- Find tutorials on YouTube to learn how to use technology tools.
- Examine information to learn new tools to use in the course.

Through third parties

- Take a course offered by the university and by the technology company with which it had an agreement.
- Of the technology personnel of the dependency.
- From relatives who dominated the programs and applications for virtual education.

The following is one of the comments regarding the learning that takes place to mitigate the effects of the pandemic on teaching:

- *Through tutorials and phone calls to some colleagues for advice.*

The investment of personal, financial, time and material resources was manifested as follows:

- Patience a lot of patience.
- Spend more time redesigning tasks.
- Buy technological items to support teaching work.
- Hire another company to access the internet.

In the same way, one of the comments that refers to one of the reasons is cited:

- *I am modifying the learning activities in order to obtain another type of exercise where the contents of the subject can be applied.*

On the other hand, the concern for using various means to communicate with students stands out. To deal with this, the teachers resorted to the following:

- Formed WhatsApp groups.
- Used their personal Facebook profiles for the live broadcast of the classes.
- He asked the technology area to activate the institutional accounts of students for his courses.
- You used phone calls from your personal cell phone numbers.
- Relied on group leaders to share information related to their courses.

One of the teachers made reference to the above through the following comment:

- *Online sessions have been tracked via Facebook in order to keep students who have encountered difficulties during the online sessions informed or to connect to them. Another means of information has been WhatsApp to consult any questions that may arise through the group's vowel.*

Consistent with the previous question, those teachers who did not report difficulties when teaching classes in the pandemic context also responded that they had not needed to make changes of any kind.

Likewise, the teachers were asked about the adaptations carried out for distance teaching, which have to do with 1) content and its disaggregation, 2) teaching-learning strategies, 3) evaluation strategies and 4) means and teaching resources.

Now, in terms of content adaptations and their disaggregation, it was found that the teaching staff did the following:

- Reviewed content more focused on theory.
- Reduced the revised content in some units and focused on the most relevant.
- Reorganized content.

The following comment reflects the above:

- *The contents are [sic] missing will be reviewed conceptually and through ADAS. Even if I wanted and could propose one more seminar, my concern is regarding the students who do not have internet access available. I am in the adaptation of the ADAS so that they do not depend 100% on the real cases to solve them.*

As expected, among the adaptations with the highest mention were those related to teaching-learning strategies, such as:

- Use REAS.
- Find alternatives so as not to depend on real scenarios, such as videos, interviews and documentaries.
- Use counseling as support for work in collaborative groups.
- Relying on free online courses for students to take as an alternative to practice or to complement their knowledge.
- Scan reading materials.
- Record videos explaining the topic and post them on YouTube.
- Increase the number of readings (independent study).
- Decrease the percentage of group activities to allow for individual learning.
- Break down the learning activities as best as possible so that they were understandable without the immediate presence of the teacher.

One of the teachers mentioned the following:

- *A change will be made in the financial information unit, changing the exercises for a Coursera online course: Accounting for Non-accountants, free. Based on this, discussion forums will be developed focused on determining how financial information supports the organization in management and decision-making.*

Regarding the adaptations of the evaluation strategies, the following were found:

- Adjustments in the rating rubric and instrument redesign.
- Eliminate tangible products.
- Use applications to evaluate, such as Active Presenter, Google Hangouts, WhatsApp or Forms.
- Use Google Drive to evaluate progress, although the final version had to be uploaded to the institutional platform.
- Reduce the number of evaluable practices.
- Change the characteristics of the final work.

The following comment is a sample of the above reasons:

- *In the final evaluation, where the competence to be developed is evident through the field visit to its receiving unit, the field visits were scheduled for this week, from May 20 to 26; For this reason, the contents and criteria with which the subject's competence will be evaluated will be adapted, the most probable thing is that it will be limited to a conceptual or declarative aspect.*

Likewise, in this section the adaptation of the means and resources used for teaching was highlighted with several mentions:

- Use email more.
- Use applications such as Zoom, WhatsApp, Zoom, Google Classroom.
- Allow the delivery of tasks by various platforms.
- Use streaming videos.

The following comment refers to the diversification of the means used to continue teaching:

- *So far, only the dates and the way to review progress have been changed, either by WhatsApp or email, and forums have been added to share the topics and present the conclusions of their learning.*

On the other hand, and given the concern on the part of the university authorities of facing a notable failure rate in the face of unequal scenarios that did not allow a percentage of students to respond successfully to the academic requirements derived from their subjects, we sought to know in greater detail those adaptations related to evaluation. In this sense, the information obtained was categorized into adaptations related to 1) evaluable criteria, 2) assigned value or score, 3) time and 4) means used.

Regarding the adaptations of evaluable criteria, the teachers mentioned that they did the following:

- Adjust rubrics or assessable instruments.
- Integrate learning activities to decrease their number.
- Adapt performance tests.
- Implement evaluable alternatives to replace those related to real scenarios or field practices.
- Consider the experiences during the contingency as a criterion to evaluate.
- Work with the data available at the time of the cut-off date to carry out the information analysis (in the case of theses in the data collection phase).

The following comment refers to including the experiences regarding the contingency in the final evaluation:

- *I made a cut of the advanced and redesigned tasks more feasible to perform based on their [sic] real possibilities. The new task is aimed at rescuing and specifying their experiences and experiences in the face of the contingency.*

Regarding the value initially assigned in the didactic planning to the different assessable criteria, the teachers mentioned the following:

- Adjust the value of the products to be delivered.
- Give more value to the theoretical.
- Adjust the value according to the strategies used by the quarantine.
- Avoid penalizing lack of practice.

One of the comments that make the above evident is the following:

- *The scores have been adjusted in order to average the activities that have been carried out so far with the online sessions and the advances in the preparation of materials and the lesson plans that the practitioners have already developed. This has been decided in consensus with the group where everyone agreed. This decision does not have a direct impact on the students' averages, since they will not be penalized for the lack of teaching practice and, instead, they will deliver all the materials they have prepared.*

Of course, the responses regarding the extension of delivery times were also constant, taking into account the particular conditions of each of the students.

Regarding the means used to carry out the evaluation, as well as those considered for teaching, the teachers mentioned that they were willing to use the official ones (virtual classroom, email, Zoom, Teams, Google Classroom, WhatsApp, etc.) to carry out this activity.

It should be noted that some responses showed that they were waiting for the official provisions to determine what would be the changes regarding the evaluation of their courses.

Finally, it was important to know what the teachers were proposing - given their experience, disciplinary knowledge and relationship with the students - to conclude the school period. The responses obtained were categorized into 1) distance education, 2) social awareness, and 3) adaptations.

Regarding distance education, the teachers commented that it was preferable to finish that way, that is, using the means and resources available for it. Special mention should be made of the responses obtained that allowed to account for the high level of understanding by the teaching staff of the different conditions experienced by each student, as reflected in the following proposals:

- Be aware of the unequal conditions of students in relation to technology (connectivity and equipment).
- Conclude with what has been seen up to the closing of the period.
- Maintain closeness with students.
- Allow presence to those who do not have the same connectivity and equipment conditions.
- Have more support from advisers for students to complete their theses.
- Make more flexible what is expected in each case (each student).
- Allow the student to focus on the family experiences that happen to him during the pandemic and consider that the contents can be seen in the other semester.

In accordance with the previous proposals, the following response is quoted:

- *Well, I am not denied the use of virtual media to finish, but I don't know how equitable it would be considering the case of students who do not have internet access. I think it would be convenient to move forward with those who have access to the internet and when reinstatement occurs, allow a regularization period for the others.*

Finally, regarding the proposed adjustments, they were categorized as follows: a) time, b) final product, c) "hook", d) content and e) administrative. The responses were grouped as follows:

- Of time: Referring to extending the semester, eliminating the summer or inter-monthly period and covering a little of the next one.

- Final product: Relating to adjusting the characteristics of the final product based on the contents reviewed, the absence of the practical part and the means available to carry it out.
- "Engagement": Allowing students to reconnect with the course through the development of innovative strategies or of interest to them.
- Content: Consider that if it is not important, it should not be seen, and if it is important and cannot be reviewed, include it in the semester that follows (in the case of serial subjects).
- Administrative: Those related to the flexibility of the institutional qualification system and the people in charge.

As in the previous cases, the following comments are shown as an example of the proposals to end the courses:

- *Continue working as we have been doing online, or continue with the courses in June to conclude in July before the holidays and eliminate summer courses.*
- *The remainder of the program should be adapted to the conditions of the students, giving them the opportunity to continue, but at their own pace and conditions. There will be students who do not have some way to follow through virtual means, because they lack internet and / or computer at home. In these cases, they should be allowed to regularize at the end of the pandemic, giving them a proportional time to do so and through equivalent activities.*

Discussion

Adaptations and situational understanding

According to what is presented in the theoretical section of this article, the difference between situational awareness and understanding lies, among other elements, in the fact of understanding the phenomenon in depth and making decisions based on the positive and negative consequences. That is, understanding implies awareness, although it goes beyond it. The premise discussed in this text is whether, in the face of the health emergency, teachers should make changes in their teaching practice.

Now, although this is evident, it is worth asking not only if these changes are due to situational awareness or reach levels of situational understanding, but also if the differences between teachers with fewer years of experience and others with more

consolidated represent deeper adaptations in the implementation of their courses. This is in accordance with what Metzdorff and Safranchik (2017) state, who point out the following:

> Teachers' practical knowledge, as a personal construction and situated in a specific context, highlights the limits of didactic theories and the specificity of teaching practice as a field for the construction of professional identity and pedagogical knowledge. (p. 205).

That is, situational understanding tests, in the expert teacher, beyond what he usually masters of his subject in terms of content, strategies, ways of evaluating, etc., part of his own identity, reflects it, confronts it , transforms it. In some way, it implies placing oneself in the role of a student whose generational characteristics very possibly present important gaps compared to what he or she experienced as a teacher in their university training, not only in terms of ways of interacting with their peers and teachers, but also also in terms of socioeconomic level, place of origin and residence, among others.

In this sense, as could be seen in the responses, the teaching staff is not only capable of evaluating the situation and proposing adaptations of form. In other words, they weren't satisfied with moving synchronicity to other platforms such as Classroom, Zoom, Microsoft Teams, Google Hangouts, and Meet, but also adapted strategies to develop new teaching materials.

Certainly it was not like that for everyone, as some teachers encountered technical difficulties that, in some way, confronted them with the ways in which they used to teach their classes; some pointed out that it was definitely the first time they had experienced a similar process; However, what must be highlighted is the flexibility of understanding that it was not about having videoconference sessions, but about expanding the range of possibilities for both them and their students. Interestingly, at the time of administering the survey, the idea was still preserved that the duration of the pandemic would be a couple of weeks and that, ultimately, in the following school year, everything would return to the customary presence.

Therefore, it is important to emphasize that some teachers saw in this situational awareness that this would not be the case - neither for them nor for their students - so they chose to join training programs, whether offered by the university itself or taken by own account to successfully face the challenge ahead.

However, this not only impacts on mediate decisions, but on the student's teacher training itself, since they perceive the situational awareness of their teachers in direct actions for the adaptation of teaching practice. In this sense, Sánchez and Jara (2018a)

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indicate that the students who are trained as teachers experience the incorporation into the classroom from a reduced situational perception and with still incomplete action schemes, which "do not appear out of nowhere with the beginning of the teaching, but they are shaped through practical, preformative and initial training experiences "(Correa, 2008, cited by Sánchez and Jara, 2018a, p. 251); in fact, they are preferably configured during the initial stage of insertion to the teaching task.

Thus, the student body conceives how their teachers managed to overcome a situation that, eventually, could be an input for their own situational understanding. Now, it is worth asking if these adjustments made by the teachers directly or indirectly teach situational understanding to students; that is, is it possible to teach situational understanding? If we take as a parallel the development of other skills such as self-regulation and particularly critical thinking, this is possible. According to Tamayo, Zona and Loaiza (2015):

> Achieving progress in the formation of critical thinking in students necessarily articulates with the pedagogical practices and the didactic perspective from which we think and do teaching. In other words, it is from the actions of the teacher in their classroom context that the development of critical thinking in students can be influenced. (p. 114).

For this reason, what teachers are teaching today is doubly important, since it will have positive repercussions on the personal and professional training of the student body, since it is modeling with their behaviors a skill that, otherwise, might have taken years of practice for the student. student in training. However, it is worth noting that it would also be interesting to inquire if the teacher makes explicit how these changes impact their students beyond the content of the subject, since the intention is to transcend from a teacher training under a more technocratic paradigm to a more cutting edge one. reflexive. In the words of Fullan and Hargreaves (1996, citados por Sánchez y Jara, 2018b):

> Teachers in training experience insertion into teaching practice and work based on the fact that "the role of theories, external prescriptions and the experiences of other teachers acquires relevance when they can be articulated with the teacher's experience and, at the same time, make sense in your work" (p. 2218).

That is, everything that teachers say and teach the student in training makes sense when he sees how they themselves solve problems, show empathy, adapt their practice, update themselves or make every possible attempt to respond satisfactorily to the situation.

In short, from all this experience as challenging and complex as that generated by the pandemic, and beyond the technological implications, it is necessary to recognize that there has been an alternation between the analysis in the classroom and the direct real training, in such a way that has made it possible to assess (and reassess) the awareness of the teacher in training (Carbonneau y Hetú, 2010).

Conclusion

The challenges faced by the surveyed teachers are associated with gradually giving up control of some elements of the class, such as the sequencing of contents, the evaluation criteria established in the program and the active and constant participation of the students, since the training of many one of them is based precisely on structuring each moment of the teaching-learning process. This, however, requires rethinking the idea of synchronicity as a simple substitute for the face-to-face session, which is why authentically virtual education schemes should be promoted.

In terms of strengths, an understanding of the pandemic is highlighted as an atypical situation faced not only by students, but also by their families, which affects academically, personally, economically and socially. Therefore, it can be concluded that there is both situational awareness and understanding about what the health contingency has currently implied for everyone and about the new meaning that words such as teaching, learning and, in general, educating will adopt.

Future lines of research

Some of the future lines of research that derive from this proposal have to do with how explicit this situational understanding of the teaching staff has been and what adaptations will be made to the emergency adjustments raised.

Likewise, it would be necessary to know the opinion of the student about how they have perceived the adjustments made by the teaching staff, what new challenges and opportunities they have brought with them and how the student teacher has gained both awareness and situational understanding of teaching in times of health emergency.

It is equally important to analyze both the awareness and the situational understanding of the management teams that have faced the pandemic, since possibly they have also had to rethink their schemes of how educational administration works in terms of attention to students, teachers and parents , as well as the supervision, monitoring and compliance with institutional regulations.

Finally, to the extent that teacher training is consolidated, this will impact on better education for future generations.

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